

AN ACCOUNT
OF THE
WORKING AND RESULTS
OF
The Canadian Pacific Railway Co's
EXPERIMENTAL FARMS.

**The Wise Policy of Selecting the Southern Route
for the C. P. R. endorsed by facts.**

WINNIPEG, 1884.

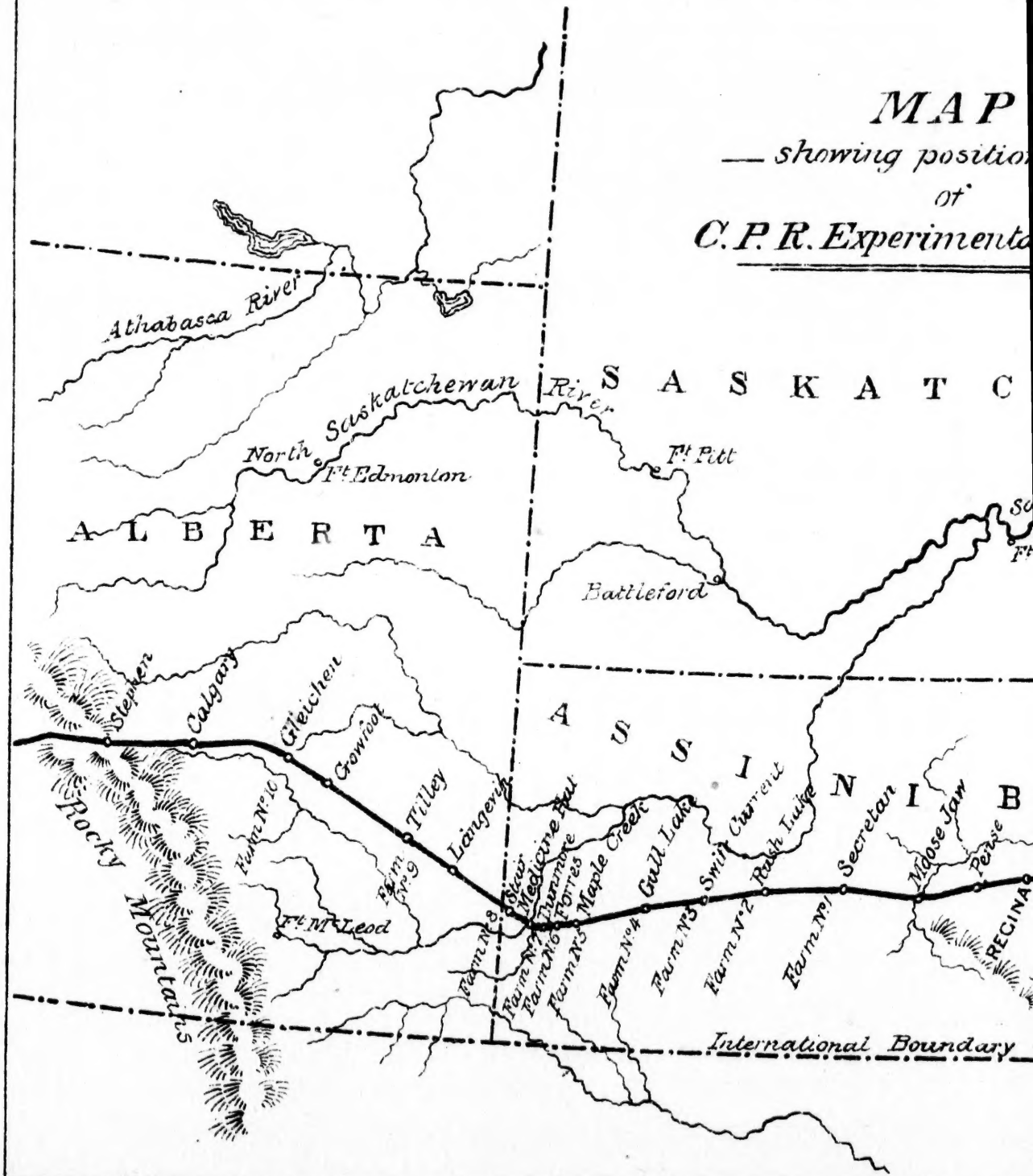
1884
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As the season was far advanced, it was necessary to adopt a plan for covering the greatest extent of territory in the shortest

MAP
 — showing position
 of
C. P. R. Experimental



MAP

showing position ———

of

Experimental Farms

S A S K A T C H E W A N



91097

THE

CANADIAN PACIFIC RAILWAY COMPANY'S EXPERIMENTAL FARMS.

A special train of a novel character, composed of fourteen cars and locomotive, left the Winnipeg yard on Friday, 12th October, '83, bound for the West. It contained teams, men, and outfit necessary for the establishing of experimental farms along the line of the Canadian Pacific Railway west of Moose Jaw. Readers will recollect the late efforts of many prominent men and newspapers to belittle the territory along the line between Moose Jaw and Calgary, even going so far as to assert that this large tract was made up of desert and alkali lands, entirely unfit for cultivation, as the following quotation selected from a number somewhat similar in nature will show:

"The Company have been permitted to divert their main line so far to the south that for hundreds of miles it runs through land which is unfit for settlement. When they asked for such an alteration of the contract in their favor, they should have been warned that they would still be compelled to take the chief part of the land subsidy along the line of railway. They knew what the lands they wished to traverse are like. Their general character has been known for a quarter of a century. They constitute the northern portion of a great American desert, which is projected like the apex of a cone into Canadian territory."

To prove how utterly at variance with the facts such assertions as these were, the C. P. R. Company conceived the idea of establishing farms at various points, to test the agricultural capabilities of this district. The Directors did not undertake this work with the view of satisfying themselves as to the fertility of these lands, and the correctness of locating the line where it has been constructed, but their desire was, by absolute proof, to show to the many thousands of tourists, capitalists and settlers who would travel over the section of the line between Winnipeg and the Rocky Mountains that their assertions as to the value of this land were well founded; for while adverse opinions were held and any doubts remained, it would be difficult to get farmers to try an experiment in which there was the slightest chance of failure.

As the season was far advanced, it was necessary to adopt a plan for covering the greatest extent of territory in the shortest

time. That adopted was as follows: The location for the farm decided on, the thirty teams were unloaded in the morning and put to work under the direction of one of the Company's field inspectors, and continued to break throughout the day. The Company's Land Commissioner after seeing the day's work fairly started, took the locomotive and his car, and went in advance until he found a suitable place for the next day's operations, returning to the first point in the evening to load up and move the entire outfit during the night to the next location chosen.

The farms were established at the following stations: 1, Secretan; 2, Rush Lake; 3, Swift Current; 4, Gull Lake; 5, Maple Creek; 6, Forres; 7, Dunmore; 8, Stair; (these two being the nearest stations east and west of Medicine Hat at the crossing of the Saskatchewan River) 9, Tilley and 10, Gleichen, the last being within view of the Rocky Mountains. The breaking throughout was found to be easy, the soil in every case good and in most instances excellent, ranking with the choicest lands, in the more easterly part of the Company's belt. Wherever the rating of the soil is lowered, according to the Company's standard, owing to its being of a lighter grade, the inferiority will be compensated for by the certainty of the grain maturing more rapidly.

The descriptions of the various farms and the ratings, as per the Company's uniform classification, of the sections at the ten farms according to their numbers, it being understood that under the Company's system of examination, all lands rated $1\frac{1}{2}$ are excellent for general farming purposes, but may cover several descriptions, number 1 only being superior, to obtain which latter rating the soil must be of the very highest known quality in every respect and practically inexhaustible, are as follows:

Secretan.—Sections 34 and 35, Township 17, Range 4 west of the 3rd Principal Meridian. Ground was broken at Secretan Station, 443 miles west of Winnipeg, at a point twenty miles beyond the last settler's house, within sight of the line, on Monday, October 15th, 1883. This farm is established on the summit of the Missouri Coteau, at an elevation of 2284 feet above the sea level. Eleven and a half acres were broken at this point. Classification of soil: clay loam, five to ten inches deep, sub-soil sandy clay, rates $1\frac{1}{2}$.

Rush Lake.—Section 14, Township 17, Range 11 west of the 3rd Principal Meridian. 489 miles west of Winnipeg. Elevation 2310 feet above the sea level. Thirteen acres of ground were broken at this point, situated on a slightly rising piece of ground north of the track, a little west of the station. Soil, sandy loam, five to eight inches deep, subsoil sandy clay, gravelly on ridges, rates $1\frac{1}{2}$.

NOTES ON THE SURROUNDING COUNTRY.—In this locality there is a large quantity of good agricultural land, with a favorable slope and drainage. Rush Lake is a large sheet of water and in the autumn swarms with ducks, geese, swans and pelicans. The rushes along the western shore, from which the lake derives its name, afford excellent cover for shooting, and this lake is becoming a celebrated sporting ground. Large quantities of hay were put up at the western end of the lake during the construction of the prairie section of the Canadian Pacific Railway.

Swift Current.—510 miles west of Winnipeg. 2430 feet above the level of the sea. 20 acres broken. Situate on Section 19, Township 15, Range 13 west of the 3rd Principal Meridian, south of the track and east of the river, on the first bench of the valley proper. This is a representative section for a vast tract of land, stretching from the Saskatchewan River on the north to the spurs of the Cypress Hills on the south. Soil varies from clay loam to sandy loam, ten to fifteen inches deep, with clay and sandy clay sub-soil.

NOTES ON THE SURROUNDING COUNTRY.—Swift Current Creek is a rapid, clear stream, rising in the Cypress Hills, and flowing into the Saskatchewan River, and as it has a considerable volume of water during the entire year, would afford excellent water power at many points along its course.

Gull Lake.—546 miles west of Winnipeg—Section 23, Township 13, Range 19 west of the 3rd Principal Meridian; 2569 feet above the sea level. Thirty acres broken. This farm occupies a commanding position to the south of the track and surrounding the station. Soil, a sandy loam, eight to eighteen inches deep, with sand and sandy clay sub-soil, rates $1\frac{1}{2}$ to 2.

NOTES ON THE SURROUNDING COUNTRY.—Near this farm are many small lakes and Gull Lake, from which the station takes its name; these like all the waters of the Northwest Territory, abound in wild fowl. Much of the land south of this point, towards the Cypress Hills, is of very good quality, the soil being richer and heavier than that of the farm.

Maple Creek.—597 miles west of Winnipeg; 2500 feet above sea level. Section 15, Township 11, Range 26 west of 3rd Principal Meridian. Eighteen acres broken in a very fine position to the north of the track, on the nearest available point to the station and in full view of the town. The track here runs through a flat which some describe as an "alkali bottom." In order to test it for agricultural purposes, a piece of the bottom in addition to the main farm on the sloping upland, was broken. Several miles to the south of Maple Creek, in the direction of Cypress Hills, were found

patches of land broken during the past summer, and the soil on the tops of the high hills was equally as good as that in the immediate neighborhood of the station. It is of a somewhat lighter nature than in Manitoba, but settlers may count on a better climate, and, with proper farming, more certain crops. Soil—sandy loam, six to twelve inches deep, subsoil sandy clay, rates $1\frac{1}{2}$.

NOTES ON THE NEIGHBORHOOD.—Maple Creek is one of the most promising of the many rising towns on the C. P. R., and to the south, east and west there is a large area of country admirably suited for settlement. The land is of excellent quality, and is traversed by many small streams of purest water, which rise in the Cypress Hills. Elsewhere water of good quality is easily obtained by digging. Large quantities of excellent prairie hay are annually cut, and in the Cypress Hills to the south there is abundance of timber for fencing, building logs and lumber. Two sawmills on the Hills are turning out large quantities of pine lumber, shingles and lath, of fine quality. Stock winter out, and thrive well on the nutritious grasses of the foot hills, and many thousand head will this season be shipped at this point from the ranches of Northern Montana. There is already a considerable number of settlers in the locality, and negotiations are pending for the settlement of two large colonies in the coming spring.

Forres—615 miles west of Winnipeg; situate on Section 31, Township 12, Range 28 west of the third Principal Meridian. 2437 feet above sea level. 28 acres broken. Soil, light sandy loam, five to twelve inches deep, with sand and sandy clay subsoil, rates $1\frac{1}{2}$ to 2.

GENERAL DESCRIPTION.—Forres farm, being only eighteen miles west of Maple Creek, bears almost the same relation to the Cypress Hills as that place, and the remarks made with regard to soil, water, hay and timber supply in that locality are equally applicable to this place. There are as yet no settlers in the immediate vicinity.

Dunmore—651 miles west of Winnipeg. 2406 feet above sea level. Situate on Section 7, Township 12, Range 4 west of 4th Principal Meridian. 35 acres broken. The land appears lighter than that of the other farms, being sandy loam four to eight inches deep, with sandy subsoil, rates 2.

GENERAL DESCRIPTION.—Dunmore farm is about 10 miles east of the South Saskatchewan River, where it is crossed by the main line of the Canadian Pacific Railway. The South Saskatchewan is a magnificent stream, and is traversed by steamers from Medicine Hat to the Galt Coal Mines, a point over 100 miles west of the railroad crossing. This river is navigable to its junction with the North Branch, where the main stream is formed. The North Branch has for

many years been navigated as far as Edmonton near the foot of the Rocky Mountains. With slight improvements these streams will make water communications of incalculable value in the future development of this country. This place is easily supplied with lumber from the Cypress Hills and much of the intervening country is of very superior quality for agricultural and grazing purposes. Before passing to the western banks of the Saskatchewan a word with regard to the Cypress Hill country. A large area of these hills themselves and also of the Foot Hills, where not timbered, is admirably adapted to grazing and dairy farming. Cattle have wintered out here for many years and a herd of several hundred head owned by Major Shurtleffe of the North West Mounted Police came through the last winter in excellent condition. The country is admirably adapted to sheep raising, being almost entirely free from the spear or porcupine grass, the danger from which has been so much spoken of. It is more than probable that a large extent of this country will be immediately used for sheep raising, which industry will, as settlement advances, give place to mixed farming.

Stair—668 miles west of Winnipeg. 2439 feet above the sea level. Situate on Section 19, Township 13, Range 6 west of the 4th Principal Meridian. Eighteen acres broken. Soil, clay loam, six to ten inches deep, sub-soil clay, rates $1\frac{1}{2}$. A large quantity of similar land is to be found in the surrounding country. This farm is situated to the north of the station, eight miles west from the crossing of the Saskatchewan River. From the station a spur line runs southwards to the coal mines of the Saskatchewan Coal Company, about a mile and a half distant. This company's mine is located on a ravine close to the Saskatchewan river. The seam being worked is about two hundred feet below the prairie level and about five feet thick. The coal is brought to prairie level by a double track inclined railway, worked by a stationary engine. The coal is of the form known as lignite, of good quality, and the quantity is practically inexhaustible as the seam may be traced in its outcroppings for several miles along the river. There are numerous locations where the settler may mine for himself by simply drifting into the banks.

Tilley—713 miles west of Winnipeg; 2470 feet above sea level. Situate on Section 19, Township 17, Range 12, west of 4th Principal Meridian. Soil, sandy loam, medium light, six to eight inches deep, clay subsoil, rates $1\frac{1}{2}$. Much of the soil had been removed by prairie fires or other causes, leaving patches of exposed subsoil, showing traces of alkali, which, together with some sage brush and cactus, gives to the land an arid appearance. This farm is situated close to the station, south of the track, and is somewhat low lying, presenting rather an unpromising appearance. It is not by any means a

fair specimen of the lands in this locality, but was chosen rather with a view of testing land of this class. To the north of the station is a lake and marsh of considerable extent, which in season swarm with myriads of duck, geese, swan and other wild fowl.

Gleichen—785 miles west of Winnipeg; 2961 feet above sea level. Situate on Southwest quarter of Section 13, Township 22, Range 23, west of 4th Principal Meridian. The farm lies north of the station. Its soil is a rich dark loam, eight to fourteen inches deep, with a clay and sandy clay subsoil, rating No. 1. The farm contains forty-two acres. It is situated at the end of the Sixth Division of the railway west of Winnipeg, where there is a round-house and work shops, together with offices and buildings usual to a divisional terminus. The land is a fair specimen of the district which stretches many miles in every direction. To the south of the railway track is the reserve of the Blackfoot tribe of Indians, on the banks of the Bow River, which has its rise at the summit of the Rocky Mountains, where its valley affords a pass renowned for its beauty and grandeur. On the reserve are two Indian villages, comprising about 2000 inhabitants, who, as the large game is rapidly disappearing with the presence of civilization, are betaking themselves to agricultural pursuits, under the direction of farm instructors appointed by the Government.

The grasses of this locality are admirably suited to stock raising and dairy farming, the farm being situated in the eastern portion of the far famed grazing districts which stretch westward to the Rockies, whose snow-capped peaks—some 150 miles distant—are distinctly visible through the clear atmosphere.

About fifteen miles to the east lies the celebrated coal seam that crops out on the banks of the Bow River, near the Blackfoot crossing, and trends northerly along the Crowfoot Creek. This seam was traced last winter for several miles by means of borings carried on by the Canadian Pacific Railway Company. The seam wherever tested showed a good quality of coal ten feet in thickness. It was found at depths varying from 65 to 115 feet below the surface. A shaft is now being sunk by the Company, with a view to its early development.

FARM OPERATIONS DURING 1884.

It was not intended to attempt the raising of crops on the farms during the season of 1884. The idea was to cultivate and prepare the ground thoroughly, in accordance with the best known practice of breaking and backsetting, so as to have a seed-bed ready for the

spring of 1885. Those in charge of the work were, however, after seeing the land once turned up, so impressed with the belief that a fair yield could be obtained, even off the sod, that it was decided to make the attempt; considering it advisable, in view of the reiterated statements, that this section of country was unfit for settlement to run the risk of imperfect cultivation rather than leave the important question unsolved for another season. A special train therefore left Winnipeg on Thursday, 27th day of March, taking boarding cars, men, teams, implements and seed grain to commence the spring operations. At Winnipeg there was still much snow on the ground, but on going westward the weather became milder and snow disappeared, so that when Dunmore was reached, on the 29th, the snow was entirely gone, the ground dry and the frost out to a depth of several inches. The train arrived at Gleichen, the most westerly of the farms, on the 30th, and ploughing and seeding commenced on March 31st, with ground dry and weather mild and beautiful overhead.

At each farm a small plot was left to be planted with roots and garden vegetables. Having regard to the date at which the breaking was done it need hardly be said to those at all conversant with prairie farming, that the sod had no chance to rot, and the land, when spring seeding was commenced, was practically in the same condition as when left in the fall, so that a proper seed-bed could not be prepared, and as a consequence much of the seed grain lay on the surface to be dried up by the sun or carried off by birds and gophers. The reader will bear in mind that the dates of breaking refer to the year 1883, and those of seeding and harvesting to 1884.

SECRETAN.

The land in this farm was broken on the 15th October, and sown on 6th of April; the ground on the latter date being backset and the seed sown with a broadcast seeder and harrowed in. During the afternoon rain and sleet fell, and the land containing a considerable amount of clay, the seeding was poorly done. A few hills of potatoes were planted and some turnips sown on the 12th of June. The roots gave promise of a fair yield, but as there was no one left in charge, they were gathered by travellers before reaching maturity. The grain was cut on the 1st September.

Wheat yielded	22	bus.	per	acre.
Oats	44 ³ / ₄	"	"	"
Barley	17 ¹ / ₂	"	"	"
Peas	10	"	"	"

Note—The yield of peas on the several farms, is no index to the value of the crop in this country. The vines, though remarkably

well podded, and the grain of fine quality, were very thin on the ground owing to the impossibility of covering the seed with the unrotted sod.

RUSH LAKE.

The land was broken on the 16th of October and sown on the 14th of April. The crop was harvested on the 1st of September.

Wheat yielded 22½ bushels per acre,

Oats " 54¾ "

Barley " 18 "

Peas " 11 "

A few potatoes were planted on the 11th of June which did well notwithstanding that they received no further attention.

SWIFT CURRENT.

The land was broken on the 28th of October and grain was sown on the 12th and 16th of April. This farm was not fenced till about the middle of June, and the crop was considerably damaged by the Indian ponies and cattle grazing on it. Oats were cut on the 13th of August and wheat on the 21st.

Wheat yielded 13½ bushels per acre. Weight per bush. 61½ lbs.

Oats " 30 "

Peas " 10½ "

No barley sown.

GULL LAKE.

Land broken on the 29th of October. Sowing was done on the 11th and 28th of April and 1st of May, and harvesting on 18th of August and 7th of September.

Wheat yielded 24 bushels per acre, Weight per bush. 60 lbs.

Oats " 55¾ " " 41 lbs.

Barley " 29½ " " 51 lbs.

Peas " 16½ "

Roots and garden vegetables did very well.

MAPLE CREEK.

The land was broken on the 18th of October and the seed sown on the 10th of April. Oats and barley were cut on the 9th of Aug. and wheat on the 19th of the same month.

Wheat yielded 22½ bushels per acre. Weight per bush. 61½ lbs.

Oats " 49½ " " 36½ lbs.

Barley " 30½ " " 51 lbs.

Peas " 15½ "

FORRES.

The land was broken on the 27th of October, and the seed sown on the 8th and 19th April, and harvested on the 11th and 20th of

August. Wheat which was sown on the 8th of April was cut on the 11th of August, taking only four months and three days to mature.

Wheat	yielded	30½	bushels per acre.	Weight per bush.	62½	lbs.
Oats	"	50	"	"	41	lbs.
Barley	"	27½	"	"	50	lbs.
Peas	"	15½	"	"		

Gardening was not commenced till the 27th of May, yet all garden vegetables, including corn, matured and yielded well.

DUNMORE.

The land was broken here on the 24th of October and sown on the 4th and 5th of April. Barley was harvested on the 23rd of July, oats on the 6th of August and wheat on the 7th of August. Barley required three months and sixteen days to mature, oats four months and one day, and wheat four months and two days. Cutting was entirely finished on this farm on August 8th, which shows how early the crops can be gathered in this section.

Gardening was not commenced till the 23rd of May, yet all vegetables, including corn, fully matured.

Wheat	yielded	20	bushels per acre.	Weight per bush.,	63	lbs.
Oats	"	38½	"	"	40½	lbs.
Barley	"	32½	"	"	50	lbs.
Peas	"	10½	"	"		

STAIR.

Land was broken on the 18th of October and sown on the 3rd and 20th of April. Barley was cut on the 25th of July, wheat and oats on the 9th of August.

Wheat	yielded	19½	bushels per acre.	Weight per bush.,	62½	lbs.
Oats	"	24½	"	"	not weighed	
Barley	"	15	"	"	52	lbs.
Peas	"	12	"	"	64	lbs.

Gardening was not commenced here till the 21st of May.

TILLEY.

As before remarked, great results could not be expected from this land, though cultivation will greatly improve it. This farm was broken on the 20th of October and sown on the 2nd of April when very wet. Barley was cut on the 18th of August, and wheat and oats on the 25th of the same month.

Wheat	yielded	12	bushels per acre.	Weight per bush.,	59	lbs.
Oats	"	38½	"	"	not weighed	
Barley	"	14	"	"	48	lbs.
Peas	"	10	"	"		

Gardening commenced on the 19th of May.

GLEICHEN.

Land was broken on the 22nd of October, and sown on the 31st of March and 22nd of April. Wheat and oats were cut on the 25th of August and the balance of wheat on the 9th of September. This finished the harvesting on the experimental farms.

Wheat	yielded	28½	bushels	per	acre.	Weight	per	bush.,	61½	lbs.
Oats	"	56½	"	"	"	"	"	"	43½	lbs.
Peas	"	13	"	"	"	"	"	"		

No barley sown.

AVERAGE FROM ALL THE FARMS.

Wheat, 21½ bushels; Oats, 44½; Barley, 23½; Peas, 12½.

The above yields were ascertained by accurately chaining the ground and weighing the grain, this work being done by a qualified Dominion Land Surveyor, and the results, both favorable and otherwise, have been fully given.

At each farm about one acre of spring wheat and oats were sown and harrowed in in the fall when breaking was done. Much of this grain germinated during the mild weather of November and December, at which time it showed green above the ground, and as a consequence it was nearly all killed during the winter, and the ground had to be resown in spring. Some small pieces of wheat which were not entirely killed out were left, and, though the straw showed a rank growth with heads and grain much larger than that sown in spring, the crop ripened very unevenly and much later. Fall sowing of spring wheat, which has proved successful in Manitoba, is not likely to be a success in the western country, as the winter is much more mild and open, and the grain liable to germinate and be killed. Fall wheat has not, as far as we are aware, been tried, and there seems no reason why it should not prove successful.

The results obtained, considering the manner in which the land was treated, proved much more satisfactory than was anticipated, and show—

1st—That for grain growing, the land in this section of country is capable of giving as large a wheat yield per acre as the heavier lands of Manitoba. (See Manitoba Crop Reports of 1883.)

2nd—That a fair crop can be obtained the first year of settlement on breaking.

3rd—That for fall seeding with spring grain on the western plains, a satisfactory result cannot be looked for with any degree of certainty.

4th—That cereals, roots, and garden produce can be successfully raised at an elevation of 3000 feet above the sea level.

5th—That seeding can be done sufficiently early to allow of all the crop being harvested before the first of September.

WEATHER REPORTS.

SECRETAN.

MAY 1884.
 10—Cloudy.
 12—Clear.
 13—"
 14—"
 15—"
 16—"
 17—Cloudy, rain during night.
 18—Foggy.
 19—Clear. Light rain during night.
 20—Cloudy. Light shower during night.
 21—Rain during night 1-20th of an inch.
 22—Clear.
 23—"
 24—"
 25—"
 26—"
 27—"
 28—Cloudy.
 29— " Rain 2-5ths of inch.
 30—Clear.
 31—Cloudy.

JUNE
 1—Clear.
 2—"
 3—"
 4—Cloudy. Rain 1-10th inch.
 5—Cloudy.
 6— " Heavy rain all night.
 7—Clear. Steady rain from 8 a. m. to 3.30 p. m.
 8—Clear. Light rain at night.
 9—"
 10—"
 11—Cloudy. Heavy rain.
 12—"
 13—Rain.
 14—Cloudy. Heavy rain and thunder storm, $\frac{1}{2}$ in. rain.
 16—Cloudy. Light rain.
 17—Clear.
 18—"
 19—"
 20—"
 21—Cloudy. Light rain.
 22—Clear.
 23—"
 24—Heavy rain, $1\frac{1}{2}$ in. at night
 25—Clear. Heavy showers during night.
 26—Cloudy. Heavy rain.
 27—Clear. Light rain 9 p. m.
 28—Cloudy, light rain at night
 29—"
 30—Clear.
 JULY
 1—Cloudy. 3-10ths inch rain during night.
 2—Cloudy.
 3—"
 4— " 1-10th in. rain at night
 5—Heavy rain showers.
 6—Cloudy.
 7—3-10ths inch rain at night.

MAPLE CREEK.

MAY— 1884.
 10—Light rain during night.
 12—Light rain.
 13—Clear.
 16—"
 17—"
 19—Light shower.
 20—"
 21—Clear.
 22—"
 23—(No report received.)
 24—"
 25—"
 26—Light shower.
 27—Cloudy.
 28—Rain.
 29—Light rain
 30—Clear.
 31—"

JUNE—
 3—Clear.
 4—Cloudy.
 5—Rain.
 6—Steady rain.
 7—Light rain
 9—"
 10—"
 11—Rain all day
 12—"
 13—Light shower.
 14—Cloudy.
 16—Hail storm.
 17—Clear.
 18—"
 19—"
 20—"
 21—Rain.
 22—Clear.
 23—Cloudy.
 24—Heavy Rain.
 25—"
 26—Cloudy.
 27—Light rain showers.
 28—Raining.
 29—Showery.
 30—Cloudy.

JULY—
 1—Clear.
 2—Cloudy.
 3—"
 4—Light rain.
 5—Clear.
 7—Heavy rain.
 8—Light shower
 9—Clear.

GLEICHEN.

MAY— 1884.
 11—Light steady rain.
 12—Light frost, no damage to grain or garden.
 13—Bright and clear.
 15—Clear.
 16—"
 17—Light rain.
 21—Clear, slight frost, no damage.
 22—Clear.
 23—"
 26—Light showers.
 27—"
 28—Steady rain.

JUNE—
 1—Clear.
 2—"
 4—Heavy rain during night
 5—Showery.
 6—Light rain.
 7—"
 8—Light showers.
 10—Clear.
 13—Heavy rain
 14—Cloudy.
 15—Heavy rain.
 16— " and thunder.
 18—Clear.
 20—"
 21—"
 23—Heavy rain during night.
 24—Heavy rain.
 25—Steady warm rain
 26—Rain in morning.
 28—Clear.

JULY—
 2—Rain in afternoon.
 4—Showery.
 12—Cloudy.
 13—Light showers.
 14—Steady rain.
 15—Rain.
 16—Steady rain.
 17—

WEATHER REPORT CONTINUED.

SECRETAN.	MAPLE CREEK.	GLEICHEN.
8—Light showers.	10—Clear.	21—Clear.
9—Clear.	11—Cloudy.	22—Thunder shower.
10—"	12—"	23—Clear.
11—"	14—Heavy shower.	24—"
12—Cloudy.	15—Clear.	25—Thunder shower.
13—Clear.	16—Steady rain.	26—Light shower.
14—Cloudy.	17—"	31—Light rain.
15—Clear.	18—Light Shower	
16—1.5th inch rain at night.	20—Clear.	
17—Steady rain.	21—"	
18—Clear.	23—"	
19—"	24—Cloudy.	
20—" Light thunder show- ers during night.	26—Clear.	
21—Cloudy.	27—"	
22—Clear.	28—Light shower.	
23—"	29—Clear.	
24—"	30—"	
25—Cloudy. Heavy thunder storm.	31—Cloudy.	
26—Clear.		
27—"		
28—Cloudy.		
29—"		
30—Light rain.		
31—"		
AUGUST	AUGUST—	AUGUST—
1—Heavy rain during night.	1—Heavy rain	1—Steady rain.
2—Heavy rain.	2—Steady rain.	2—Light rain.
3—Clear.	4—Clear	3—Clear.
4—"	5—"	4—"
5—Cloudy.	6—"	5—"
6—Clear.	9—"	6—"
7—Cloudy.	11—"	8—"
8—Rain.	12—"	9—"
9—Light rain showers during night.	13—"	11—"
11—Clear.	14—Light rain.	12—"
12—"	15—" showers.	14—Rain.
13—Cloudy.	16—Cloudy.	15—Cloudy.
15—Light rain during night.	18—"	16—Clear, slight frost, no da- mage.
16—Clear. Light frost. Grain not touched.	19—Clear	17—Light rain during night.
17—Cloudy.	20—"	18—Heavy rain shower and hail.
18—Rain and thunder storm	22—"	19—Clear.
19—Clear.	23—"	20—"
20—"	25—"	21—Rain.
21—Light rain during night.	26—"	22—Clear.
22—Showery during night.	27—"	23—"
23—Clear.	28—"	25—"
24—Cloudy.	29—"	26—"
25—Clear.	30—"	27—Cloudy.
26—"		28—"
27—Cloudy.		
28—Clear.		
29—"		
31—Cloudy.		
SEPTEMBER	SEPTEMBER—	SEPTEMBER—
1—Light shower during night	1—Clear.	3—Showery.
2—Cloudy	2—"	4—"
3—Heavy rain during night.	3—Rain.	5—"
4—Light rain.	4—Light rain.	6—Heavy rain showers.
5—Steady rain all night.	5—Steady rain.	7—Clear, heavy frost.
7—Cloudy. Light frost. Grain not hurt.	6—"	8—Clear.
8—Steady rain all night.	7—Clear.	9—"
9—Cloudy. Light frost. Har- vesting completed.	8—Heavy rain during night. Light fall of snow.	10—Cloudy.
10—Clear. Heavy frost.	9—Cloudy. Light fall of snow.	12—Steady rain.
11—Cloudy, light rain at night	10—Heavy shower.	13—"
12—"	12—Light rain.	15—Heavy rain.
13—"	13—"	
15—"	15—"	

NOTE.—Some of the reports were mislaid, others were not received owing to the disarrangement of the wires and other causes. Similar reports were received from several other farms. These are open for inspection at the office of the Company in Winnipeg. The above were chosen as being from the farms at the remote ends and centre of the district. It was thought a fair idea could in this way be arrived at throughout.

Opinions on the Soil and Products of the Experimental Farms.

Views expressed by the Honorable Alexander MacKenzie, late Premier of the Dominion of Canada :

"I arranged to visit seven out of the ten experimental farms commenced by the railway company, to ascertain first the effect of the alkali deposits, which prevailed to some extent in some districts, upon cereals and roots, and secondly, to ascertain what the result was in a general way of these farms, considering soil and climate. I observed throughout the whole length of the road that there was scarcely any poor soil to be seen. In quarters, notably between Medicine Hat and Moose Jaw, there was an appearance of dryness in the general aspect of the prairie visible, which was not apparent where the land had been ploughed. There is a sort of crispness in the grass in some places that would seem to indicate a prevailing dryness. This, however, is not uniformly the case. What is known as buffalo grass, where it has a dry appearance, still continues to preserve its nutritious qualities, and cures as well standing as if cut. Such is the general statement made to me by old settlers.

I visited seven out of the ten experimental farms, namely, those at Gleichen, 784 miles from Winnipeg; Tilley, 713 miles; Stair, 668 miles; Dunmore, 650 miles; Forres, 615 miles; Maple Creek, 596 miles, and Gull Lake, 546 miles from Winnipeg. The three not visited, although they were within sight, are those at Swift Current, Rush Lake and Secretan, the latter being 442 miles west of Winnipeg. The whole of these farms cover a district of about 350 miles from east to west. The farms should evidently be taken as a test of the capabilities of the country for farming operations, and the suitability of the climate. I was careful to observe the quality of the crops, as well as the respective kinds. The wheat was uniformly a fair crop, not as heavy as some seen in the district around Calgary or in Manitoba, but would probably average from 17 to 20 bushels to the acre. One remarkable feature of the whole country is the number of stalks of grain from one kernel. In one instance we counted no fewer than forty-six heads from one root. The oats and pease yielded a fair crop, while roots, such as potatoes and turnips, showed quite as good a result as any of the farms in better known districts of Manitoba. On several of the farms I observed tomatoes (in one case nearly ripe), melons, cucumbers and citrons. The district embraced by these experimental farms covers the larger part of the

district generally believed to be more or less arid in its character, and subject to alkali deposits—alkali, however, is found in the Province of Manitoba as well as in the North-west and western districts. In the vicinity of Brandon, for instance, I observed considerable portions of the fields showing traces of alkali deposits. The uniform testimony of those who have cultivated the lands where alkali prevails is to the effect that it is worked out of the land after a few croppings. Some authorities, notably Professor Macoun, maintain that it does not at all injure the land. There is no doubt, however, but what it affects at least the first crop, and, I think, probably one or two others, more or less prejudicially. Some of the fields I observed near Brandon where an excellent crop was carried, showed a spot here and there of inferior quality, such inferiority being the result, so I was informed, of alkali deposits. As to the quality of the soil from the Red River to the mountains it will be pronounced equal to any other tract of country, although there is a considerable quantity of poor land in some places, but the percentage of such lands is small over the whole area. Immediately around Winnipeg, for many miles westward, southward, and northward, the soil is exceedingly rich, and only wants draining in some parts to make it the most fertile land in the world. The central district, which I have just described in connection with the experimental farms, may be considered a continuation of the quality of land which prevails from Brandon westward to Regina and Moose Jaw. In some places the soil is comparatively shallow, and will require careful farming to maintain itself, but, generally speaking the soil is deep and good. Some districts well north of the railway, described by Palliser as more or less arid and sandy, I did not see."

The Hon. Sir Hector Langevin, in his speech at the banquet tendered to him in Winnipeg, referred to the farms and the country in which they are placed in the following terms:

"The soil was so good that he had not found an acre of bad land in all his travels. There had been stories about a great desert, but it did not exist. In place of barren, sterile land, there was a very good fertile country. He had visited the C. P. R. model farms in order to ascertain whether the land there was as good as in other parts of the Northwest and in Manitoba where settlers had established themselves. He had come at this period of the year to see the crop standing, and also in places after they had been cut. He had found on these C. P. R. experimental farms most beautiful wheat, also the best oats possible, also flourishing roots. The farms were as good as the best in the country. At Calgary there were some of the best farms he had seen. Some of the best settlers from the eastern townships in the Province of Quebec were about to settle there, after having examined carefully the land."

Opinion of Sir Richard Temple, a prominent member of the British Association for the Advancement of Science:

"Almost everywhere they saw rich soil. Most of them had expected that they would find tracts of arid waste, or that if they saw rich soil it would be largely interspersed with specimens of gravel, rock, and soil not suitable for cultivation; but this idea proved to be entirely false, for he declared without exaggeration that on the whole way from Winnipeg to the foot of the Rockies there was hardly a foot of ground that did not seem to be capable of being turned to human use. Estimating the distance to the foot of the Rockies at a thousand miles, there was for this distance one unbroken area of land more or less fertile and capable of being turned to the advantage of man. Cereals were grown upon many farms exclusively; some of the greatest farms in the country were wheat farms almost entirely. They saw in many parts of the country specimens or exhibits of the products of the farm. The C. P. R. Company had set a very excellent example by having model or pattern farms close along the line of railway, to show that the country was capable of producing. In inspecting these, while they find nothing to equal the monster cabbages shown at the exhibition here, yet they saw good turnips and potatoes. They had heard in England that there would be great difficulty in growing wheat at the altitude of this country, it being too high above the sea, but this idea was entirely falsified by what they saw, for wheat grew well 2,000 feet above the sea; at Calgary at 3,000 feet; and at Padmore at 3,500 feet. Hence there was nothing in the altitude of this country to prevent wheat being grown on an immense scale."

FACTS TO BE REMEMBERED.

The Canadian Pacific Railway owns the odd numbered sections contained in a belt twenty-four miles on each side of their line between Winnipeg and the Rocky Mountains.

The Company select only lands fit for settlement. These selected lands are offered at prices from \$2.50 per acre upwards, with a rebate of from \$1.25 to \$3.00 for each acre cultivated.

Remember that *free grants of 160 acres* can be obtained from the Government, within the railway belt.

These can be selected from the richest prairie lands of the Canadian Northwest.

No forest to clear; no stumps or stones to contend with! The land can be ploughed and a crop raised in the same season in which the settler takes up his homestead.

Low fares and freight rates are offered to the settler, over the Canadian Pacific. Be sure your tickets read via C. P. R. route.

For fullest information about the country, and prices of the Company's lands, apply to

J. H. McTAVISH,

C. P. R. LAND COMMISSIONER,

WINNIPEG, MAN.